ROTARY NOZZLE FOR REMOVING IMPURITY IN MOLTEN METAL

Publication number: JP1259135 (A)
Publication date: 1989-10-16
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Classification:
- international: ***C22B9/05; C22B21/06; C22B9/00; C22B21/00;*** (IPC1-7): C22B9/05; C22B21/06
- European:
Application number: JP19880087574 19880408
Priority number(s): JP19880087574 19880408

Also published as:
JP2033780 (B)
JP1610055 (C)

Abstract of **JP 1259135 (A)**

PURPOSE:To control the wear of a rotary nozzle *and to reduce its exchange frequency by forming the* shaft and rotor of the nozzle for agitating molten metal and blowing cleaning gas with a porous ceramic. CONSTITUTION:The shaft 10 and rotor 20 of the rotary nozzle 1 for removing impurities in *molten metal (especially molten Al) are formed with* a porous ceramic consisting of SiC, Si3N4, Al2O3, etc., and having pores having about 0.1-100mu diameter. The nozzle 1 is dipped in a melt and rotated, and cleaning gas is blown in from a passage 2 and discharged into radical grooves 25 from small holes 26. Consequently, the gas is atomized by notches 24 into fine gas bubbles, and the bubbles are dispersed in the melt and floated. The melt is also agitated by the notch 24, and the melt is positively brought into contact with the gas bubbles.; By this method, the inclusion such as gaseous hydrogen and oxides in the melt is removed as impurities. Since the nozzle 1 is formed with a ceramic, the wear and tear are controlled, and the exchange frequency is remarkably reduced.